

PATENT COOPERATION TREATY

Handwritten signature: A.S. Jones

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

To:
JAMES F. HALEY
C/O FISH & NEAVE
1251 AVENUE OF THE AMERICAS
NEW YORK, NY 10020

RECEIVED

JUN 13 2003

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT
OR THE DECLARATION

FISH & NEAVE - PATENT
REFERRED TO 65
NOTED BY _____

(PCT Rule 44.1)

Date of Mailing
(day/month/year) **09 JUN 2003**

Applicant's or agent's file reference
GFI/102 PCT

FOR FURTHER ACTION See paragraphs 1 and 4 below

International application No.
PCT/US02/41510

International filing date
(day/month/year)
24 December 2002 (24.12.2002)

Applicant
WILDT, STEFAN

DOCKETED FOR Aug. 9, 2003

1. ☒ The applicant is hereby notified that the international search report has been established and is transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

Where? Directly to the International Bureau of WIPO, 34, chemin des Colombettes
1211 Geneva 20, Switzerland, Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

- ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. Reminders

Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90 bis.1 and 90 bis.3, respectively, before the completion of the technical preparations for international publication.

Within 19 months from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later); otherwise the applicant must, within 20 months from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of 30 months (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the ISA/US
Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
Facsimile No. (703)305-3230

Authorized officer

Handwritten signature: Felicia D. Roberts
Deborah Crouch, Ph.D.

Telephone No. 703-308-0196

Form PCT/ISA/220 (April 2002)

(See notes on accompanying sheet)

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No. EV371745986US

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference GFI/102 PCT	FOR FURTHER ACTION	see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. PCT/US02/41510	International filing date (<i>day/month/year</i>) 24 December 2002 (24.12.2002)	(Earliest) Priority Date (<i>day/month/year</i>) 27 December 2001 (27.12.2001)
Applicant WILDT, STEFAN		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the Report

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:



contained in the international application in written form.



filed together with the international application in computer readable form.



furnished subsequently to this Authority in written form.



furnished subsequently to this Authority in computer readable form.



the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (See Box II).

4. With regard to the title,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

5. With regard to the abstract,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No. _____



as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.



None of the figures

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US02/41510

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A01K 67/027; C12N 9/10, 1/04, 1/16, 1/18

US CL : 800/13-18; 435/193, 252.3, 254.11, 254.51, 254.21, 254.23, 254.3, 254.4, 254.6, 254.7, 325, 463

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 800/13-18; 435/193, 252.3, 254.11, 254.51, 254.21, 254.23, 254.3, 254.4, 254.6, 254.7, 325, 463

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EAST, CAPLUS, BIOSIS, EMBASE**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	MIELE, R. G. et al. Glycosylation of Asparagine-28 of Recombinant Staphylokinase with High-Mannose-Type Oligosaccharides Results in a Protein with Highly Attenuated Plasminogen Activator Activity. Journal of Biological Chemistry. 19 March 1999, Volume 274, No. 12, pages 7769-7776.	1-60
A	MARTINET, W. et al. Modification of the Protein Glycosylation Pathway in the Methylotrophic Yeast Pichia Pastoris. Biotechnology Letters. December 1998, Volume 20, No. 12, pages 1171-1177.	1-60
A	MARAS, M. et al. In Vitro Conversion of the Carbohydrate Moiety of Fungal Glycoproteins to Mammalian-Type Oligosaccharides. Journal of Biochemistry. 1997., Volume 249, pages 701-707.	1-60
A	RAJU, T. S. et al. Species-Specific Variation in Glycosylation of IgG: Evidence for Species-Specific Sialylation and Branch-Specific Galactosylation and Importance for Engineering Recombinant Glycoprotein Therapeutics. Glycobiology. 2000, Volume 10, No. 5, pages 477-486.	1-60



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

Date of the actual completion of the international search

15 May 2003 (15.05.2003)

Date of mailing of the international search report

09 JUN 2003

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

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Authorized officer

Felicia D. Roberts for
Deborah Crouch, Ph.D.

Telephone No. 703-308-0196

INTERNATIONAL SEARCH REPORT

PCT/US02/41510

C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	OMTVEDT, L. A. et al. Glycosylation of Immunoglobulin Light Chains Associated with Amyloidosis. Amyloid: International Journal of Experimental and Clinical Investigation. 2000, Volume 7, pages 227-244.	1-60
A	FUKUTA, K. et al. Comparative Study of the N-Glycans of Human Monoclonal Immunglobulins M Produced by Hybridoma and Parental Cells. Archives of Biochemistry and Biophysics. 01 June 2000, Volume 378, No. 1, pages 142-150.	1-60
A	TAKAHASHI, N. et al. Comparative Structural Study of the N-Linked Oligosaccharides of Human Normal and Pathological Immunoglobulin G. Biochemistry, 1987, Volume 26, pages 1137-1144.	1-60
A	KATO, J. et al. Nucleotide Sequence of a Regulatory Region Controlling Alginate Synthesis in Pseudomonas aeruginosa: Characterization of the AlgR2 Gene. Gene. 1989, Volume 84, pages 31-38.	1-60
A	DUMAN, J. G. et al. O-Mannosylation of Pichia Pastoris Cellular and Recombinant Proteins. Biotechnology and Applied Biochemistry. 1998, Volume 28, pages 39-45.	1-60
A	MIELE, R. G. et al. Glycosylation Properties fo the Pichia Pastoris-Expressed Recombinant Kringle 2 Domain of Tissue-Type Plasminogen Activator. Biotechnology and Applied Biochemistry. 1997, Volume 25, pages 151-1157.	1-60
A	TREMBLAY, L. O. et al. Cloning and Expression of a Specific Human Alpha 1,2-Mannosidase that Trims Man9GlcNAc2 to Man8GlcNAc2 Isomer B during N-Glycan Biosynthesis. Glycobiology. 1999, Volume 9, Number 10, pages 1073-1079.	1-60
A	VAZQUEZ-REYNA, A. B. et al. Biosynthesis of Glycoproteins in Candida Albicans: Biochemical Characterization of a Soluble Alpha-Mannosidase. FEMS Microbiology Letters. 1993, Volume 106, pages 321-326.	1-60
A	RUNGE, K. W. et al. A New Yease Mutant in the Glucosylation Steps fo the Asparagine-Linked Glycosylation Pathway. Journal of Biological Chemistry. 25 November 1986, Volume 261, No. 33, pages 15582-15590.	1-60
A	SUZUKI, C. Immunochemical and Mutational Analyses of P-Type ATPase Spf1p Involved in the Yeast Secretory Pathway. Bioscience Biotechnology Biochemistry. 2001, Volume 65, Number 11, 2405-2411.	1-60
A	AEBI, M. et al. Cloning and Characterization of the ALG3 Gene of Saccharomyces Cerevisiae. Glycobiology. 1996, Volume 6, No. 4, pages 439-444.	1-60